

## ABSTRACT

The present invention relates to modified G-protein coupled receptors (GPCRs). The modified GPCRs of the present invention include GPCRs that have been modified to have carboxyl terminal tails comprising one or more sites of phosphorylation, preferably one or more clusters of phosphorylation sites. The modified GPCRs of the present invention may comprise a retained portion of a carboxyl-terminus region from a first GPCR fused to a polypeptide, wherein the polypeptide comprises the one or more clusters of phosphorylation. The present invention also relates to methods of screening compounds and sample solutions for GPCR activity using the modified GPCRs.